

Application No. 09/309,157

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remarks are submitted. Applicant respectfully requests reconsideration of in view of the amendments and remarks.

Claims 40-43, 45-48, 49-52, and 53-56 are added by the amendment and include individual elements that were listed in Markush groups in claims 1, 21, 33, and 39, respectively. Support for these claims is found in the application as filed on page 22, lines 26-30. No new matter has been added. Claim 44 is added by the amendment, and contains subject matter that in Claim 22, which was previously cancelled in the Reply mailed January 17, 2002. Support for new Claim 44 is found in the application as filed in original claim 22. No new matter has been added.

Claim Objections

Claim 31 was objected to by the Examiner for depending from a canceled claim. As per the Examiner's suggestion, claim 31 has been amended to depend from claim 21.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 21, and 29-32 were rejected under 35 U.S.C. § 103 over U.S. Pat. No. 6,100,526 ("Mayes '026") in view of U.S. Pat. No. 4,883,963 ("Kemeny '963"). Applicant respectfully traverses these rejections.

Regarding claim 1, the Examiner stated that Mayes '526 "substantially teaches the claimed invention except that it does not show the monochromator being selected from the group consisting of a stationary interferometer, a stationary Hadamard mask, an acoustic-optic tunable filter (AOTF), and an electro-optic modulator." The Examiner further stated that Kemeny '963 shows that it is known to use an acoustic-optic tunable filter for obtaining rapid wavelength change. The present invention as claimed in amended claim 1 has a detector positioned to quantify and simultaneously detect one or more narrow portions of the near infrared spectrum created by the monochromator. Support for amended claim 1 is found in the application as filed on page 12, lines 9-12, and no new matter has been added. Kemeny '963 teaches a single detector that detects separate wavelengths sequentially. Applicant submits that Examiner is picking and choosing elements of the references and may have used impermissible hindsight analysis in modifying the references of Mayes '626 and Kemeny '963 to arrive at claim 1.

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The Mayes '626 and Kemeny '963 references alone or in combination do not teach or suggest a monochromator being selected from the group consisting of a stationary interferometer, a stationary Hadamard mask, an acoustic-optic tunable filter (AOTF), and an electro-optic modulator used with a detector that includes an array as claimed in claim 1. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 281, 180 U.S.P.Q. 580 (CCPA 1974); MPEP § 2143.03. Consequently, all of the limitations of claim 1 are not achieved by the combination of Mayes '526 and Kemeny '963. Kemeny '963 in fact teaches away from the invention as claimed by including only a single detector 10 positioned on an integrating sphere 7. Col. 8, lines 1-9. Kemeny further teaches that "[t]he object of this invention is to improve the speed of wavelength change . . ." Col. 3, lines 23-24. As the present application states "[t]he photodiode array 40 also greatly increases the speed at which a sample can be analyzed since the entire spectrum of reflected light is transmitted at once, rather than scanning and transmitting one range at a time." [Emphasis supplied] Page 12, lines 9-12. For the foregoing reasons, Applicant requests that the Examiner withdraw the rejection and allow Claim 1.

Claims 40-43 added by the amendment each include one of the Markush group of monochromators listed in claim 1, respectively. Therefore each of claims 40-43 is patentable for the same reasons described above for claim 1. No new matter has been added to the application by new claims 40-43. Support for the amendment is found in the specification as filed at page 22, lines 26-30.

Regarding claim 21, the Examiner stated that Mayes '526 "substantially teaches the claimed invention except that it does not show the monochromator being selected from the group consisting of a stationary interferometer, a stationary Hadamard mask, an acoustic-optic tunable filter (AOTF), and an electro-optic modulator." The Examiner further stated that Kemeny '963 shows that it is known to use an acoustic-optic tunable filter for obtaining rapid wavelength change. As previously noted, the present invention as claimed in amended claim 21 includes the simultaneous isolating of narrow portions of the spectrum. Kemeny '963 teaches a single detector that detects separate wavelengths sequentially. Applicant submits that Examiner is

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picking and choosing elements of the references and may have used impermissible hindsight analysis in modifying the references of Mayes '626 and Kemeny '963 to arrive at claim 21.

Claim 21 has been amended to further distinguish the Mayes '526 and Kemeny '963 references, which do not teach or suggest a method of analyzing a substance that includes a step of isolating the sensed radiation into one or more narrow portions of the spectrum simultaneously and which step is selected from the group consisting of using a stationary interferometer, using a stationary Hadamard mask, using an acoustic-optic tunable filter (AOTF), an using an electro-optic modulator. Support for claim 21 as amended is found in the application as filed on page 12, lines 9-12, and on page 22, lines 26-30. No new matter has been added.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 281, 180 U.S.P.Q. 580 (CCPA 1974); MPEP § 2143.03. Because all of the limitations of amended claim 21 are not taught or suggested by the combination of Mayes '526 and Kemeny '963, the Examiner has not established a *prima facie* case of obviousness. Furthermore, Kemeny '963 in fact teaches away from the invention as claimed by including using only a single detector 10 positioned on an integrating sphere 7. Col. 8, lines 1-9. Accordingly, Applicant requests that the Examiner withdraw the rejection and allow claim 21.

Claims 45-48 added by the amendment each include one of the Markush group of step of isolating listed in claim 21, respectively. Therefore each of claims 45-48 is patentable for the same reasons described above for claim 21. No new matter has been added to the application by new claims 45-48. Support for the amendment is found in the specification as filed at page 22, lines 26-30.

Regarding claims 29-32, without acceding to the propriety of the combination, these claims depend directly from claim 21, and are therefore patentable for at the least the same reasons as described above for claim 21. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed.

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Cir. 1988). Consequently, Applicant requests that the Examiner withdraw the rejection and allow claims 29-32.

Claims 33 and 34 were rejected under 35 U.S.C. § 103 over U.S. Pat. No. 6,100,526 ("Mayes '026") in view of U.S. Pat. No. 5,038,040 ("Funk '040"). Applicant respectfully traverses these rejections.

Regarding claim 33, the Examiner stated "Mayes '526 substantially teaches the claimed invention except that it does not show a method of a sensor, sensing near infrared light that is reflected off the substance while moving the sensor relative to the substance." The Examiner further stated that Funk '040 shows that is known to provide a method of moving a sensor relative to the substance and sense near infrared light reflected from the substance. Applicant disagrees with and traverses this assertion of the Examiner.

Amended claim 33 provides that the step of isolating the sensed radiation into one or more narrow portions of the spectrum simultaneously and which step is selected from the group consisting of using a stationary interferometer, using a stationary Hadamard mask, using an acoustic-optic tunable filter (AOTF), and using an electro-optic modulator. There is no teaching or suggestion in Mayes '526 or Funk '040 alone or in combination to perform a step of isolating the sensed radiation into one or more narrow portions of the spectrum simultaneously and which step is selected from the group consisting of using a stationary interferometer, using a stationary Hadamard mask, using a acoustic-optic tunable filter (AOTF), and using an electro-optic modulator. Consequently, all of the claim limitations of amended claim 33 are not taught or suggested and *prima facie* obviousness has not been established. Accordingly, Applicant requests that the Examiner withdraw the rejection and allow claim 33. Support for the amendment to Claim 33 is found in the application as filed on page 12, lines 9-12, and on page 22, lines 26-30.

Regarding claim 34, without acceding to the propriety of the combination, claim 34 depends directly from claim 33 and is therefore patentable for at least the same reasons as described above for claim 33. If an independent claim is nonobvious under 35 U.S.C. 103, then any claim

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depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). Consequently, Applicant requests that the Examiner withdraw the rejection and allow claim 34.

Claims 49-52 added by the amendment each include one of the Markush group of steps of isolating listed in claim 33, respectively. Therefore each of claims 49-52 is patentable for the same reasons described above for claim 33. No new matter has been added to the application by new claims 49-52. Support for the amendment is found in the application as filed at page 22, lines 26-30.

Claim 39 was rejected under 35 U.S.C. § 103 over U.S. Pat. No. 6,100,526 ("Mayes '526") in view of U.S. Pat. No. 4,883,963 ("Kemeny '963"). Applicant respectfully traverses this rejection.

Regarding amended claim 39, the combination of Mayes '526 and Kemeny '963 suggested by the Examiner fails to teach or suggest all of the claim limitations. Amended claim 39 includes the limitation of the monochromator having a detector positioned to simultaneously detect one or more isolated narrow portions of the near infrared spectrum created by the monochromator. As a result, a *prima facie* case of obviousness has not been established. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 281, 180 U.S.P.Q. 580 (CCPA 1974); MPEP § 2143.03. Support for this amendment to Claim 39 is found in the application as filed on page 12, lines 9-12. No new matter has been added. Furthermore, Kemeny '963 in fact teaches away from the invention as claimed by including using only a single detector 10 positioned on an integrating sphere 7. Col. 8, lines 1-9. Accordingly, Applicant requests that the Examiner withdraw the rejection and allow claim 39. Support for the amendment to Claim 39 is found in the application as filed on page 12, lines 9-12.

Additionally regarding claim 39, the Examiner stated "Mayes '526 substantially teaches the claimed invention except that it does not show the monochromator being selected from the group consisting of a stationary interferometer, a stationary Hadamard mask, an acoustic-optic tunable

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filter (AOTF), and an electro-optic modulator." The Examiner further stated that Kemeny '963 shows that it is known to use an acoustic-optic tunable filter for obtaining rapid wavelength change. As noted above, the present invention as claimed in amended claim 39 has a detector positioned to quantify and simultaneously detect one or more narrow portions of the near infrared spectrum created by the monochromator. Kemeny '963 teaches a single detector that detects separate wavelengths sequentially. Applicant submits that Examiner is picking and choosing elements of the references and may have used impermissible hindsight analysis in modifying the references of Mayes '626 and Kemeny '963 to arrive at claim 39.

Claims 53-56 added by the amendment each include one of the Markush group of monochromators listed in claim 39, respectively. Therefore each claims 53-56 is patentable for the same reasons described above for claim 39. No new matter has been added to the application by new claims 53-56. Support for the amendment is found in the application as filed at page 22, lines 26-30.

Conclusion

For the foregoing reasons, the claims remaining in the application are in condition for allowance. Applicant, therefore, respectfully requests that the Examiner withdraw the rejections and allow all claims in the application.

Sincerely,



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